

A NEW SPECIES OF *TRIPUDIA GROTE*
(LEPIDOPTERA: NOCTUIDAE) FROM
WESTERN TEXAS

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Abstract.—*Tripudia chihuahua* is described. Male and female imagines, genitalia, and male wing venation are figured. The species occurs in the Chihuahuan desert of western Texas.

This new species is well known to the authors because it is not uncommon in the Chihuahuan desert habitat of west Texas, especially in Big Bend National Park. It has remained undescribed for many years, and in some collections was probably misidentified as *Tripudia inquaesita* (Barnes & Benjamin) due to superficial similarity to that species.

Tripudia chihuahua A. Blanchard & E. Knudson, NEW SPECIES

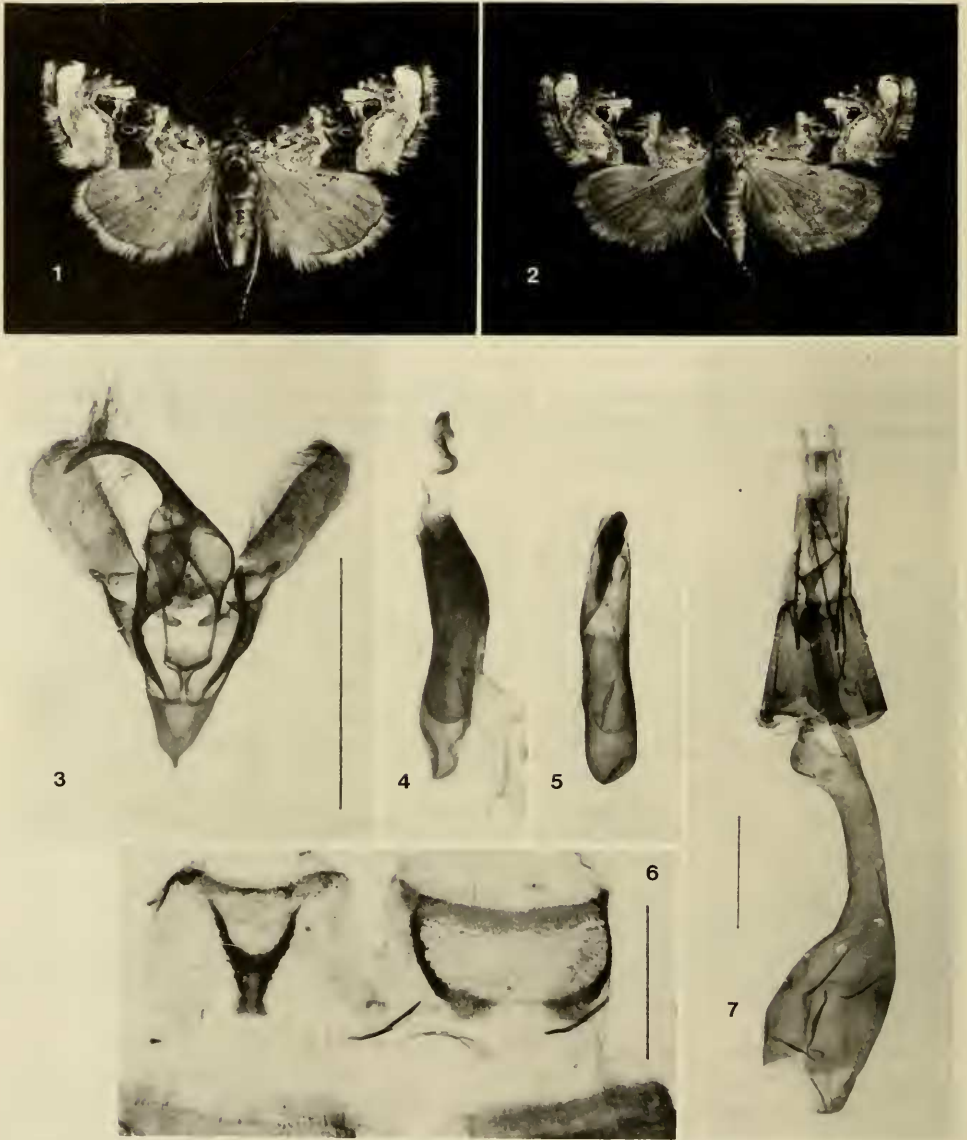
Figs. 1-9

Head.—Front rounded, slightly protruding, smooth scaled, cream color with a few blackish brown scales laterally. Vertex clothed with anteriorly directed rows of scales, slightly erect between antennal bases, cream color, with some blackish brown scales between antennal bases. Labial palpi upcurved to slightly above eye; cream color with some blackish brown scales on lateral surface. Ocelli present. Antennae simple, light brown dorso-laterally, minutely setose ventrally, scape whitish.

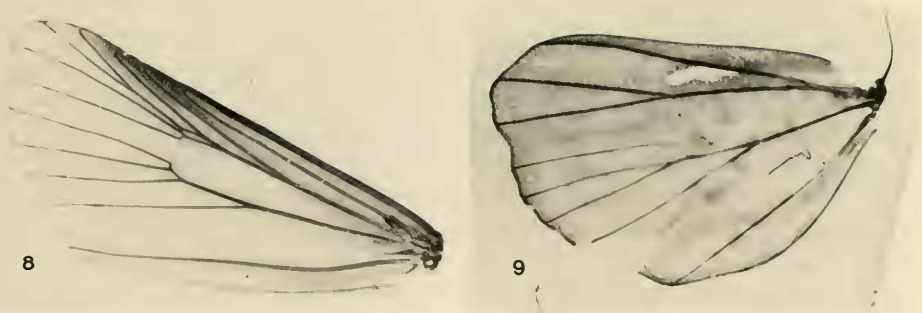
Thorax.—Tegulae, patagia, and mesonotum cream color with variable irroration of blackish brown. Posterior tuft light brown, relatively flattened and smooth. Legs with femora and tibiae mainly whitish, tarsi dark brown with whitish bands at the joints.

Abdomen.—Cream color with brown bands at anterior margins of segments dorsally, entirely cream color ventrally. Small flat mid-dorsal tufts on 1st and 2nd segments; slightly larger raised dorsal tuft on 3rd segment.

Forewings.—Multicolored in various shades of brown, gray, black, pink, and white. Antemedial band extending from costa at inner $\frac{2}{5}$, slightly outwardly angled below cell, joining dorsal margin at inner $\frac{1}{3}$; outer line black, inner line medium brown, enclosing a pale center, which is pinkish near costa and light brown over median area to dorsal margin. Basal of the antemedial band, ground color is mainly brown, becoming darker toward costa, interrupted by a wavy basal half line, which is whitish, and 2 black spots below cell. Median area contrastingly dark brown, with patches of black scales between orbicular and reniform, and



Figs. 1-7. *Tripudia chihuahuana*. 1, Holotype male, Big Bend Nat'l. Park, Texas, Chihuahuan Desert near Nugent Mt., 8-X-69, A. & M. E. Blanchard coll. 2, Paratype female, same data as holotype. 3, Male genitalia of paratype, aedeagus removed, on slide ECK 755, Culberson Co., Texas, 10 miles N. of Van Horn, 2-IX-79, E. Knudson coll. 4, Aedeagus with manica intact, same specimen as Fig. 3. 5, Aedeagus with manica removed, from slide ECK 762, same locality as holotype, 13-IX-82, E. Knudson coll. 6, Sclerotizations of 8th abdominal segment of male, slide ECK 754, Culberson Co., Texas, 10 mi N. of Van Horn, 2-IX-79, E. Knudson coll. 7, Female genitalia of paratype, on slide ECK 657, same locality as holotype, 13-IX-82, E. Knudson coll. The segment in Figs. 3, 4, 5, and 7 represents 1 mm, in Fig. 6, it represents 0.5 mm.



Figs. 8-9. Wing venation of male. 8, Forewing venation of male, slide AB 2769, same locality as holotype, 10-IV-67, A. & M. E. Blanchard coll. 9, Hindwing venation of male, same specimen as Fig. 8.

patch of steely gray scales near dorsal margin. Orbicular ovoid, blackish, ringed with white. Reniform quadrangular, slightly constricted near middle, brown, spotted with black and ringed with white. Subreniform displaced inward, barely touching orbicular and similar to it in form and color, although smaller and paler. Postmedial band extending from costa at outer $\frac{2}{5}$; outwardly rounded well beyond reniform and thence nearly vertical to dorsum at outer $\frac{2}{5}$; inner line black, outer line brown, enclosing a paler center, which is pinkish near costa and light brown over median portion to dorsum. Outer $\frac{2}{5}$ of wing mainly white, with a dark brown subapical wedge at costa, including three short white costal dashes, and merging with a variable patch of light brown and gray scales above and at tornus. Terminal line black, narrow, usually continuous. Fringe white speckled with brown and with a broad brownish inner band, which is usually interrupted by white scales at apex, near middle, and at tornus. Undersurface fuscous, except for costa, which is whitish, irrorated with fuscous. Postmedial line faint, dark fuscous, terminal line well defined, blackish.

Hindwing pale fuscous, with darker median line faintly indicated or obsolete; terminal line blackish; fringe whitish. Undersurface whitish, irrorated with fuscous, with faint darker medial line and dark terminal line.

Venation (Figs. 8, 9).—Forewing: Accessory cell small; R_1 free, R_2 from near base of accessory cell; R_{3-4} stalked for about $\frac{1}{2}$ their length, arising near, but not connate with R_5 , at the apex of accessory cell. M_1 arising from near upper angle of cell. Hindwing: M_2 nearly as strong as M_3 and Cu_1 , arising from discocellular vein $\frac{1}{4}$ the distance from lower angle; M_3-Cu_1 very short stalked.

Length of forewing.—Males: (N = 20) 8.5–6.8 mm, average 7.8 mm. Females: (N = 20) 8.7–6.8 mm, average 8.0 mm.

Male genitalia (Figs. 3–6).—Fig. 3 is of genitalia with aedeagus removed. Uncus a long curved hook, not expanded at its apex. Valvae with well sclerotized costa basally only, lacking costal process. Sacculus short, moderately expanded, with clavus. Clasper present, with broad ampullary portion. Valvula unmodified, cucullus undifferentiated. Juxta fork-like, with lateral processes extending to near base of tegumen. Fig. 4 is of aedeagus with densely spined manica intact, vesica

partially extruded, showing S shaped cornutus. Fig. 5 is of aedeagus with manica removed, vesica not extruded. Fig. 6 is of 8th abdominal segment.

Female genitalia (Fig. 7).—Papillae anales narrow, widely separated, lightly setose. Apophyses posteriores twice the length of apophyses anteriores. Sterigma with genital opening funnel shaped, membranous; ostial chamber constricted and densely scobinate posteriorly, partially sclerotized anteriorly. Ductus bursae $\frac{1}{3}$ the length of corpus bursae, lightly scobinate. Corpus bursae with appendix bursae posteriorly, bearing ductus seminalis; globular anteriorly, membranous, except for signa, which consists of a small cluster of scobinations.

Holotype (Fig. 1).—Male, Brewster Co., Texas, Big Bend Nat'l. Park, Chihuahuan desert near Nugent Mt., 8-X-69, collected by A. & M. E. Blanchard and deposited in the National Museum of Natural History, Washington, D.C.

Paratypes.—Same data as holotype, 6 ♂, 7 ♀; same locality as holotype, 6-IV-67, 1 ♂; 10-IV-67, 3 ♂, 2 ♀; 1-X-67, 3 ♂, 2 ♀; Big Bend Nat'l. Park, Oak Spring, 30-VI-65, 1 ♂, 1 ♀; Dugout Wells, 2-VII-65, 1 ♂; Presidio Co., Texas, Shafter, 9-IX-69, 2 ♂, all collected by A. & M.E. Blanchard. Same location as holotype, 28-IX-81, 1 ♂, 1 ♀; 13-IX-82, 2 ♂, 6 ♀; Big Bend Nat'l. Park, Dugout Wells, 13-IX-82, 1 ♂, 2 ♀; Gov't. Spring, 12-IX-82, 1 ♂; Terrel Co., Texas, Sanderson, 25-IV-81, 2 ♀; Culberson Co., Texas, 10 miles N. of Van Horn, 2-IX-79, 3 ♂, all collected by E. Knudson.

REMARKS

This new species is placed in the genus *Tripudia* Grote for several reasons. Although the male genitalia are unlike any of the seven North American species studied by the authors, the interspecific differences within *Tripudia* are no less than the differences between *chihuahua* and other *Tripudia*. The wing venation agrees with *Tripudia*, *Cobubatha* Walker, and some species of *Ozarba* Walker. The abdominal tufts are more like those of *Tripudia* than either *Cobubatha* or *Ozarba*. The maculation of the adult is most similar to *Tripudia inquaesita* (B. & Benj.), from which it differs in several respects. In *inquaesita*, the antemedial band is less distinct, with little contrast between the median and basal areas of the wing; the orbicular and subreniform are absent; the subterminal area is not mainly whitish. The genitalia of *inquaesita* also differ greatly from *chihuahua*. Both species occur in Big Bend Nat'l. Park, but *inquaesita* is much less common.

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